



A national assessment of the sensitivity of Australian runoff to climate change

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Abstract:

The relationship between catchment rainfall, evapotranspiration and runoff can be exploited to assess climate risk to water resources. National data regarding climatology and runoff were used to estimate the sensitivity of regional runoff to projected changes in precipitation and evaporation. These sensitivity factors were integrated with patterns of climate change from 12 different global climate model (GCM) simulations to project future annual runoff sensitivity per degree of global mean temperature change. Divergent runoff sensitivities were identified depending upon the selected GCM. Averaging among GCMs resulted in a robust pattern of runoff sensitivity suitable for estimating future climate risk.

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Resource Description

Climate Scenario :

specification of climate scenario (set of assumptions about future states related to climate)

Special Report on Emissions Scenarios (SRES)

Special Report on Emissions Scenarios (SRES) Scenario: SRES A2, SRES B2

Exposure :

weather or climate related pathway by which climate change affects health

Food/Water Security, Precipitation

Geographic Feature:

resource focuses on specific type of geography

Freshwater

Geographic Location:

resource focuses on specific location

Non-United States

Non-United States: Australasia

Health Impact:

Climate Change and Human Health Literature Portal

specification of health effect or disease related to climate change exposure

Health Outcome Unspecified

Mitigation/Adaptation:

mitigation or adaptation strategy is a focus of resource

Adaptation

Model/Methodology:

type of model used or methodology development is a focus of resource

Exposure Change Prediction

Resource Type:

format or standard characteristic of resource

Research Article

Timescale:

time period studied

Long-Term (>50 years)

Vulnerability/Impact Assessment:

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content